(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 3 August 2006 (03.08.2006)

(10) International Publication Number WO 2006/080730 A1

- (51) International Patent Classification: C04B 35/48 (2006.01)
- (21) International Application Number:

PCT/KR2005/003349

- (22) International Filing Date: 8 October 2005 (08.10.2005)
- (25) Filing Language:

Korean

(26) Publication Language:

English

(30) Priority Data:

10-2004-0080356 8 October 2004 (08.10.2004) KR 10-2005-0094526 7 October 2005 (07.10.2005) KR

- (71) Applicant (for all designated States except US): LG CHEM, LTD. [KR/KR]; 20 Yoido-dong, Youndungpo-gu, Seoul 150-721 (KR).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): KONG, Young-Min [KR/KR]; 401-404 Expo Apt., Jeonmin-dong, Yuseong-gu, Daejeon-city 305-762 (KR). LEE, Eungje [KR/KR]; 16/7, 765 Sanggye-dong, Nowon-gu, Seoul 139-200 (KR). CHOI, Jongsik [KR/KR]; 109-704 Sejong Apt., Jeonmin-dong, Yuseong-gu, Daejeon-city 305-728 (KR). KIM, Hyoun-Ee [KR/KR]; 1-308 Daewoo Apt., Bangbae3-dong, Seocho-gu, Seoul 137-934 (KR).

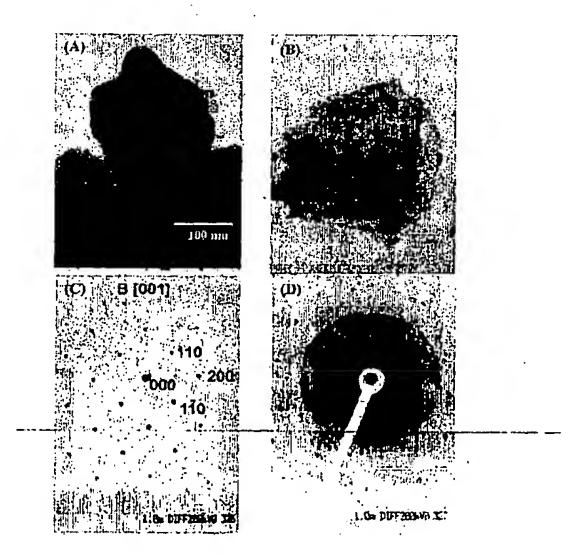
- (74) Agent: Y.P.LEE, MOCK & PARTNERS; The Cheonghwa Bldg. 1571-18 Seocho-dong, Seocho-gu, Seoul 137-874 (KR).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ZIRCONIA-ALUMINA NANO-COMPOSITE POWDER AND PREPARATION METHOD THEREOF



(57) Abstract: Provided are a multi-component ceramic nano-composite powder that is suitable for forming a sintered ceramic composite and a method of preparing the same. The ceramic nano-composite powder is formed of secondary particles obtained by sintering multi-component ceramic particles with a nano-sized primary particle diameter in nano-scale. The multi-component ceramic particles may be formed of zirconia and alumina. A sintered zirconia-alumina composite formed by sintering the nano-composite powder has greater flexural strength than a sintered composite prepared by mechanically mixing zirconia powder and alumina powder and sintering the mixture.

X 080/900/900